UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

March 28, 2002

Supervisor Sophie Maxwell
City and County of San Francisco
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

Re: Hunters Point Shipyard, Building 816

Dear Supervisor Maxwell:

It was a pleasure meeting with you and your staff last month. As you requested during that meeting, we are providing EPA's position regarding the former Naval Radiological Defense Laboratory (NRDL) building 816 located on the lowland portion of Parcel A, Hunters Point Shipyard.

According to Navy records, building 816 once contained a van de Graaf generator that used tritium targets. When the Navy ceased NRDL operations in 1969, the interior of building 816 was surveyed, cleaned and deemed safe for unrestricted reuse by the Atomic Energy Commission. In 1979, in accordance with Nuclear Regulatory Commission guidelines and using updated equipment and procedures, the Navy resurveyed building 816 and again confirmed that no measurable contamination was present. The Navy recommended that building 816 be released for unrestricted use.

In 1989, the Shipyard was placed on the Superfund National Priority List (NPL). EPA and the California Department of Health Services (DHS) requested that the Navy assess all former NRDL buildings to ensure that there was no residual radiation and that there were no releases to the environment - that is, to ensure that the exterior areas surrounding these buildings did not have contamination. In May 1993, the Navy conducted an investigation and determined that there was no radiation contamination associated with building 816. In a memorandum dated August 26, 1993, EPA's radiation expert Mr. Steve Dean concurred with the Navy's results for Building 816. EPA concluded that there were no risks to human health or the environment from radiation at building 816 and that no further action was required under Superfund. In August 1993, DHS conducted an independent soil sampling activity to confirm the Navy's results at building 816. In a letter dated November 24, 1993, DHS also officially concurred with the Navy's sampling program and their conclusions.

DHS has regulatory authority over private property in California where there has been radiological material. While Parcel A is currently Federal property, the Navy intends to transfer Parcel A to the City of San Francisco. In a letter dated August 9, 2001, the Navy requested concurrence from DHS that building 816 was suitable for unrestricted release. On August 24, 2001, DHS submitted their written concurrence to the Navy and stated " DHS has concluded that with respect to radiological issues, building 816 in Parcel A at Hunters Point Shipyard is suitable

for unrestricted release." The Navy has therefore secured DHS release of building 816 while it is still under Federal jurisdiction, eliminating any potential impediments to reuse once ownership is transferred to the City of San Francisco.

EPA maintains its previous position, that there are no risks to human health or the environment from radiation at building 816. I hope that this letter addresses your concerns regarding building 816. For your information, I am attaching copies of the pertinent correspondence regarding building 816 as discussed above to this letter. If you have any additional questions, please contact me at 415-972-3013.

Sincerely,

Claire Trombadore

Claire Trombadore
Remedial Project Manager

Attachments

State of California

Memorandum

Attachment 1

Date: August 24, 2001

To: Mr. Stan Phillippe, Chief
Office of Military Facilities
Department of Toxic Substances Control (DTSC), Region 2
400 P Street
Sacramento, California 95812

From: Environmental Management Branch
P.O. Box 942732
601 North 7th Street, MS 396
Sacramento, California 94234-7320
(916) 445-0498

Subject: Release of Building 816, Parcel A at Hunters Point Shipyard

Upon the request of The Department of Toxic Substance Control (DTSC), DHS reviewed radiological issues associated with Building 816, Hunters Point Shipyard. DHS has actively participated in review of site documentation and performed site visits. DHS has reviewed the information provided by the Department of the Navy in a letter and attached documents dated August 9, 2001 from Mr. Richard Mach, BRAC Environmental Coordinator. DHS had some further questions, which were directed, to the Navy's Radiological Affairs Support Office (RASO). These questions were adequately answered by way of e-mails which will be maintained in our files. Based on this review, DHS has concluded, that with respect to radiological issues, Building 816 in Parcel A at Hunters Point Shipyard is acceptable for unrestricted release.

If you need further assistance please contact Deirdre Dement of my staff at (916) 324-2209.

Jack McGurk, Chief

cc: Mr. Chein Kao
Office of Military Facilities
Department of Toxic Substances Control (DTSC), Region 2
700 Heinz Avenue, Suite 200
Berkeley, California 94710

Post-it® Fax Note 7671	Date 9/24	# of pages ▶ 2
To Claire Trombadore	From Chein Kao	
Co./Dept.	Co.	
Phone #	Phone # 510-540-3822	
Fax # 415-744-1916	Fax #	

09/24/01 MON 12:12 [TX/RX NO 7394]

Mr. Richard Mach, Jr.
BRAC Environmental Coordinator
Department of the Navy
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132-5190

Ms. Deirdre Dement
Department of Health Services
P.O. Box 942732
601 N. 7th Street, MS 396
Sacramento, CA 94232-7320

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132-5190

5090
Ser 06CH.RM/0747
August 9, 2001

Ms. Dierdre Dement
601 N. 7th Street, MS 396
P.O. Box 942732
Sacramento, CA 94234-7320

Dear Ms. Dement:

Enclosures (1) through (5) are provided for your review regarding the radiological surveys performed at Building 816, Parcel A, Hunters Point Shipyard. The Navy's Radiological Affairs Support Office (RASO) has reviewed this information and recommends that this building is suitable for unrestricted release. Please review this information and provide a comment or concurrence letter to me by August 23, 2001.

Should you have any concerns with this matter, please contact me at (619) 532-0913.

Sincerely,

RICHARD G. MACH JR., P.E.
BRAC Environmental Coordinator
By direction of the Commander

Enclosure 1. Health Physics Activities in Connection with the Disestablishment of NRDL: Disposal of Radioactive Material and Termination of AEC Licences, letter and attachment, January 8, 1970
2. Investigation of Tritium in Surface Soils and Paving Materials Surrounding Building 816, May 17-18, 1993
3. Hunters Point Annex (HPS) radiation Technical Meeting Minutes for meeting held on July 7, 1993
4. Hunters Point Annex (HPS) radiation Technical Meeting Minutes for meeting held on October 4, 1993
5. Hunters Point Naval Shipyard, Radiological Screening Investigation, Special Report, May 2001

Ms. Christine Shirley
833 Market St., #1107
San Francisco, CA 94103

Mr. Robert J. Hocker, Jr.
Mr. Marcos Getchell
Ms. Elizabeth McDaniel
Four Embarcadero Center, Suite 1700
San Francisco, CA. 94111

Ms. Carol Coon
Government Information Center, 5th Floor
100 Larkin Street
San Francisco, CA 94102

Anna E. Waden Library
5075 Third Street
San Francisco, CA 94124

Mr. Mike Wanta
135 Main Street Suite 1800
San Francisco, Ca 94105

Mr. Bill Breedlove
4005 Port Chicago Highway
Concord, CA 94520

Mr. Ronald Keichline (w/o Encl)
1230 Columbia Street Suite 400
San Diego, CA 92101

Mr. Keith Tisdell
613 La Salle Avenue
San Francisco, CA 94124

Ms. Caroline Washington
137 Atoll Circle
San Francisco, CA 94124

Ms. Marie Harrison
4908 Third Street
San Francisco, CA 94124

Copy to:

Mr. Michael Work (SFD-8-3)
Ms. Claire Trombadore (SFD 8-3)
Mr. Steve Dean (SFD 8)
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Mr. Chein Kao
Ms. Eileen Hughes
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

Mr. Michael Rochette
California Regional Quality Control Board, San Francisco Bay Region
1515 Clay Street, #1400
Oakland, CA 94612

Ms. Karla Brasaemle
530 Howard street Suite 400
San Francisco, CA. 94105

Ms. Amy Brownell
1390 Market St., Suite 910
San Francisco, Ca 94102

Mr. Don Capobres
770 Golden Gate Avenue
San Francisco, CA 94102

Ms. Rona Sandler
City Hall, Room 234
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4682

Mr. Gregg Olson
1155 Market Street, 4th Floor
San Francisco, CA 94103

Attachment 3

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

PETE WILSON, Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
P.O. BOX 942732
SACRAMENTO, CA 94234-7320

(916) 445-0498

November 24, 1993

Ms. Barbara Smith
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Dear Ms. Smith:

The Department of Health Services conducted an independent tritium soil sampling activity to confirm the results of the analysis by the Navy around Building 816 at Hunters Point. Enclosed are the details of the sampling activity and the results of the analysis.

Based on these results, we confirmed that the tritium sampling program of the Navy surrounding Building 816 at Hunters Point is satisfactory.

If you have any questions concerning this letter, please telephone me at (916) 322-2183.

Sincerely,

Steven A. Book, Ph.D.
Special Assistant
Environmental Radiation Programs
Division of Drinking Water and
Environmental Management

Enclosure

cc: Cyrus Shabahari, DTSC
John Adams, SWB
Mike McClelland, WESTDIV
Steve Dean, EPA:R9
Fil Fong, RHB-B
Norris J. Parks, SRL-B

Department of Health Services Confirmatory Soil Sampling Around Building 816 at Hunters Point Annex

On August 13, 1993 the Department of Health Services conducted confirmatory soil sampling for tritium around Building 816 at Hunters Point Annex. Observers at the sampling were Dean Chaney, USNRC Region V, and Michael McClelland, USN WESTDIV.

Prior to collecting any soil, the immediate area surrounding each sampling point was surveyed with the Ludlum Micro R Meter, Model 19, S/N 80382. This meter was last calibrated 2/12/93 and the next calibration date will be 2/12/94. The purpose of this survey was to assure the sample will not contain unreasonable gamma emitting material (natural or manmade) which might influence the radioanalysis. This survey showed no sampling point had a reading greater than 10 uR/hr and the readings were between 5-10 uR/hr.

The soils were collected with with a garden trowel and deposited into a screw cap glass container. Each filled glass container was marked, placed into a plastic bag and the bag tapped sealed. After each sample the trowel was rinsed with clean tap water and tissue dried.

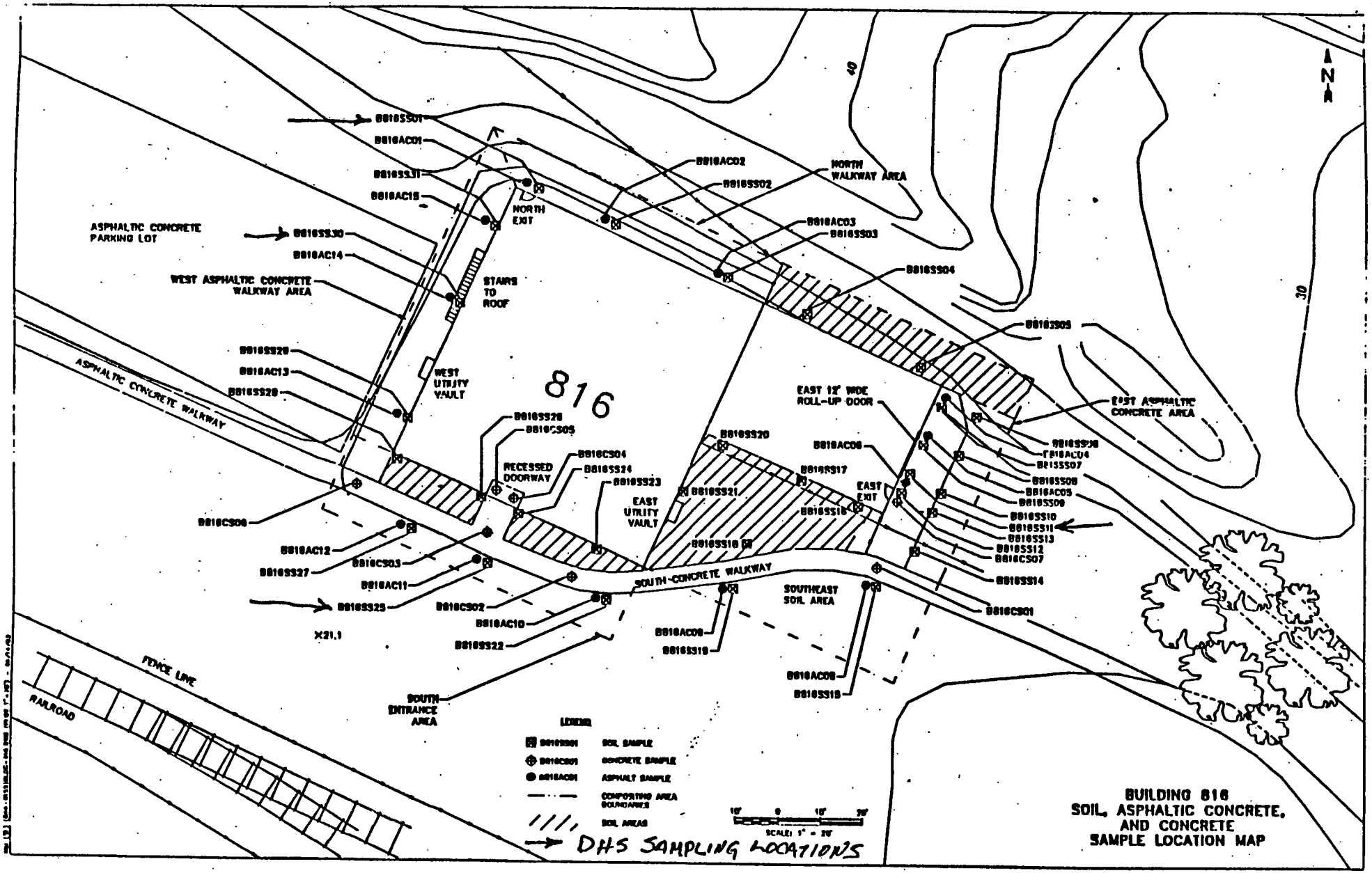
A background soil sample was selected about 25 yards south of Building 816. The soil sampling points selected were the sampling points previously sampled by the Navy. The Navy identification numbers were confirmed by map and the painted number by the disturbed ground. The samples were collected after removing the asphalt/concrete and large rocks from the sample point. After the collection the sampled openings were replaced with the asphalt/concrete and large rocks.

The samples and the description of the samples were as follows: The attached map detailed the locations of the sampled points.

Sample Id	Description	Navy Id
70102	Background	Not Applicable
70103	Southeast	B816SS11
70104	North	B816SS01
70105	Northwest	B816SS30
70106	South	B816SS25

The soil samples were taken to the Department of Health Services, Sanitation and Radiation Laboratory, Berkeley, for tritium analysis on August 13, 1993 about 2:00 PM

Filbert Fong
Health Physicist


816
NORTH WALKWAY AREA
NORTH EXIT
ASPHALTIC CONCRETE PARKING LOT
WEST ASPHALTIC CONCRETE WALKWAY AREA
STAIRS TO ROOF
WEST UTILITY VAULT
ASPHALTIC CONCRETE WALKWAY
RECESSED DOORWAY
EAST UTILITY VAULT
EAST 12' WIDE ROLL-UP DOOR
EAST EXIT
EAST ASPHALTIC CONCRETE AREA
SOUTH CONCRETE WALKWAY
SOUTHEAST SOIL AREA
SOUTH ENTRANCE AREA
FENCE LINE
RAILROAD
X21.1
LEGEND
SOIL SAMPLE
CONCRETE SAMPLE
ASPHALT SAMPLE
COMPOSITING AREA BOUNDARIES
SOIL AREAS
SCALE: 1" = 20'
DHS SAMPLING LOCATIONS
BUILDING 816
SOIL, ASPHALTIC CONCRETE, AND CONCRETE
SAMPLE LOCATION MAP

Department of Health Services *Radiochemistry Unit* Sanitation and Radiation Laboratory

FAX
(916) 324 1380

(510) 540 2515

Memorandum

Date: September 29, 1993

To: Mr. Fil Fong
Environmental Management Branch
Department of Health Services

From: Norris J. Parks, Ph.D.
Research Radiochemist
Radiochemistry Unit/SRLB

Subject: Hunter's Point Assays for Samples SS-11,SS-01, SS-30, SS-30, SS-25

The Radiological Analyses Results form from the Radiochemistry Unit; SRLB is appended. There are no indications of excess Tritium beta activity over natural background. The average values from duplicate assays of soil samples were all less than the average reagent blank values. The values are all below the LLD_{95} value of 2.35 pCi/g for this dry soil method. Positive controls (spiked samples) showed that at least 89% of any ^{3}H present would have recovered and detected if present in excess of the LLD_{95}.

RADIOLOGICAL ANALYSES
RESULTS

Sampling Location:	Hunters Point Annex
Sampling Date/Time:	August 13, 1993
Sample Type:	soil
SRL Number:	6555 to 6559
R Number:	70102 to 70106
Date Received:	August 13, 1993
Contact:	Fil Fong, EMB 916-324-1378

Sample	Description	Analysis	Result (pCi)	Isotope
6555-93	background/South bldg 816 HPA	LSC	-0.10 ± 1.44	H-3
6556-93	SS-11	"	-0.17 ± 1.44	H-3
6557-93	SS-01	"	-0.49 ± 1.44	H-3
6558-93	SS-30	"	-0.28 ± 1.44	H-3
6559-93	SS-25	"	-0.51 ± 1.47	H-3

The results are comparable to the laboratory background soil, which was analyzed with the samples.

The lower level of detection for this analysis was 2.38 pCi/g.

Attachment 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

September 8, 1993

Raymond E. Raymos
Base Closure Team
Western Division
Naval Facilities Engineering Command
San Bruno, CA 94066-2402

Dear Mr. Raymos:

Enclosed are comments on Appendix G, Building 816 Tritium Radiation Investigation, of the Draft Parcel A Site Inspection (SI) Report, dated July 30, 1993. These comments should be included with the other Draft Parcel A SI Report comments I sent to you yesterday; I inadvertently left them out. If you have any questions regarding these comments, please call Mr. Steve Dean, Environmental Scientist, directly at 744-1045.

Sincerely,

Roberta Blank
Remedial Project Manager

Enclosure: 2 pages

cc: Bill Radzevich, WestDiv
Mike McClelland, WestDiv
Cyrus Shabahari, DTSC
Barbara Smith, RWQCB
Jim Sullivan, NSTI
Amy Brownell, SFPHD
Gary Welshans, PRC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

MEMORANDUM

DATE: August 26, 1993

FROM: Steve M. Dean
Environmental Scientist, ORIA, (A-1-1)

TO: Roberta Blank
Remedial Project Manager, FEB, (H-9-2)

SUBJECT: Building 816 Tritium Study

After reviewing the report titled "Investigation of Tritium in Surface Soils and Paving Materials Surrounding Building 816" I am satisfied that tritium can be ruled out as a potential radiation hazard to the public as a result of activities in this building. Since tritium is as mobile as water, in most cases, there was little chance that detectable levels would be present 14 years or so later.

There are several points in the report on which I would like to comment:

Page 10, paragraph 2: "the most probable route of entry into the body at this site is by ingestion of soils or vegetation."

Page 11, paragraph 2: "At building 816, it was determined that ingestion of tritium in soils and paving materials would be the primary exposure pathway."

In my opinion, ingestion of soil, vegetation, and paving materials would **not** be the dominant exposure pathway for tritium. The most probable exposure pathway would be inhalation from tritium volatilizing as water vapor from the soil or concrete into the air. Had tritium been detected in any of the samples the Risk Assessment Guidance for Superfund Human Health Evaluation Manual Part B would have been a more appropriate choice for determining the risk to the public than ICRP (1975).

The drinking water MCL is frequently used as an ARAR when discussing tritium contamination. The MCL for tritium is currently 4 mrem per year which in turn is defined as 20,000 pCi/liter. However, to apply this ARAR to this study it would have to be considered 20,000 pCi/liter of soil, vegetation, or paving material moisture.

However, since no tritium was found at Building 816 a detailed discussion of the Relevant Regulatory Requirements is unnecessary in this report.

The samples' moisture content also raises another issue:

During a phone conversation this morning with Dr. Dinkar Kharkar of TMA/Norcal he said that none of the samples had sufficient moisture to generate 10 milliliters of water per sample necessary for the scintillation analysis. Consequently, 10 mls of deionized water were added to each sample before the azeotropic distillation was performed. Thus, the procedure was more like a water extraction than a distillation of sample moisture. This addition to the lab procedure should be mentioned in this report.

One final comment:

Page 9, footnote a: "Reported value is less than the negative of its 2 sigma counting error."

This is not the best way to report this data. A better explanation of this footnote is required, and also, reporting negative values does not give the data much credibility when reviewed by the general public.

If you have any questions or comments please do not hesitate to call me at 4-1045. Thank you.

cc: Michael Bandrowski, Director, ORIA